

## **Tobacco Burden in Egypt and Efforts for Control and Prevention: Global Support Needs in Developing Countries**

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Slide 1:

**Text:** Tobacco Burden in Egypt and Efforts for Control and Prevention: Global Support Needs in Developing Countries

Mostafa K. Mohamed, Ain Shams University Cairo Egypt, Egyptian Smoking Prevention Research Institute (ESPRI), Funded by U.S. NIH (Fogarty International Center)

Interagency Committee on Smoking and health (ICSH)

Meeting on The Global tobacco Epidemic.

Omni Shoreham Hotel Washington DC April 13 2005

Slide 2:

**Text:**

- Global tobacco control is a major challenge for the public health community. Why?
- In Developing Countries communities are increasingly subjected to intense direct and indirect marketing of tobacco products,
- Also local resources, infrastructure, and overall capacity are insufficient to meet these challenges.
- Solution: Global Network International Centers for tobacco control research and Prevention

Slide 3:

**Text:**

- One such center is located in Egypt “Egypt Smoking Prevention Research Institute [ESPRI], 2002-2007
- at the National Hepatology & Tropical Medicine Research Institute (NHTMRI) in Cairo, which is affiliated with the MOHP
- This was made possible by the leadership of
  - Dr. Ebenezer Israel (founding Principal Investigator [PI]) at the University of Maryland,
  - Dr. Christopher Loffredo (new PI as of July 1, 2005) at Georgetown University
  - Dr. Mostafa K. Mohamed (major foreign investigator) at Ain Shams University in Cairo.
- NIH R01TW05944-03

Slide 4:

**Text:** Tobacco Prevention Success Requires Cross-Sector Platforms and Long-Term Cooperative Partnerships

**Government**

- Strong Political Commitment
- Presidential, Ministerial leadership
- Multinational agreements FCTC

**Academics**

- Ongoing research
- Evolving Tobacco preventive and Control strategies
- Tobacco Burden and Outcome measurement

**Non-Governmental Organizations (NGOs)**

- Continuous Strong Advocacy
- Real-time surveillance
- Internet organization tools
- Steering Wheel concept

**Media**

- Support and human resources
- Political reach/ change Norms
- Multinational collaboration
  - TV Ads Australia

Slide 5:

**Text:** Actions to Alter the Tobacco Burden of Disease In Developing countries

- Resources are required to create infrastructure and provide support for :
  - **Steering Wheel Action Group**
  - Tobacco Research Capacity Building
  - Internet Access to International Sites
  - Organization of Network of Tobacco Control officers at The Ministry of Health (MOH)
  - Media Production and collaboration

Slide 6:

**Text:**

- Egyptian Smoking Prevention Research Institute (ESPRI) researchers :
    - 10 University Professors
    - 15 trainees University staff and Ministry of Health and Population (MOHP) trainees
  - Egyptian Smoking Prevention Research Institute collaborators :
    - WHO Eastern Mediterranean Regional Office (EMRO)
    - Ministry of Health and Population,
    - with major universities in Egypt,
    - Non-governmental organizations Medical Syndicate ...etc ..
- Act as a steering wheel to perform a wide array of tobacco-related research, prevention, and capacity building activities.

Slide 7:

**Text:** Tobacco Burden in Egypt and Efforts for Control and Prevention

1. Burden of tobacco use in Egypt and EMRO region
2. Activities of ESPRI and importance of seeding an active steering group for the Tobacco prevention activities in the targeted countries
3. Importance of selecting appropriate collaborators from different perspectives (academics, ministry officials etc..) to tackle the whole issue
4. Water-pipe smoking, Religious Influence  
A unique perspective in the whole region
5. Consortium Collaboration Proposal future vision

Slide 8:

**Text:** Prevalence of Smoking among Adult Males in Egypt

National Household Survey in All 27 Governorates in Egypt sample over 5000 individuals.

**Graphics:**

Pie Graph

**2005**

None—70%

Cigarettes—30%

Shisha—6%

Both—4%

Slide 9:

**Graphics:**

Bar Graph 1

**Current Smokers Age of Initiation by Birth Cohors in Egypt**

Cigarettes

<1950—25

1950—20

1960—18

1970—17

1980—19

1990—12

Shisha

<1950—33

1950—32

1960—27

1970—23

1980—18

1990—13

Bar Graph 2

**Ever Smoking Age of Initiation by Birth Cohorts in Egypt**

Cigarettes

<1950—24

1950—21

1960—21

1970—17

1980—18  
 1990—11  
 Shisha  
 <1950—32  
 1950—32  
 1960—27  
 1970—22  
 1980—18  
 1990—11

Slide 10:

**Graphics:**

Bar Graph 1

**Average Cigarette and Shisha tobacco /day for Smokers in Egypt 2005**

Mean

<17—11.2  
 18-24—14.9  
 25-34—18.0  
 35-44—19.3  
 45-54—19.0  
 55-64—18.7  
 65+—13.0

Total—17.6

Median

<17—7.0  
 18-24—15.0  
 25-34—20.0  
 35-44—20.0  
 45-54—20.0  
 55-64—20.0  
 65+—10.0

Total—20.0

**Bar Graph 2**

Mean

<17—1.5  
 18-24—2.4  
 25-34—2.2  
 35-44—3.2  
 45-54—3.7  
 55-64—2.6  
 65+—2.9

Total—2.8

Median

<17—1.0  
 18-24—1.5  
 25-34—2.0  
 35-44—2.0  
 45-54—2.0

55-64—1.5  
65+—2.0  
Total—2.0

Slide 11:

**Text:** 1— The role of ESPRI in research for implementation of the FCTC?  
Providing evidence of country specific magnitude of impacts of tobacco on health and economics:

- A study was done to estimate the burden of tobacco use in the country on mortality and morbidity: 23,000 deaths annually (8% of total adult deaths/year) were due to cigarette smoking
- There was evidence of large smoking effects on TB mortality

Slide 12:

**Text:** The DALY: A Comparative Tool to Measure Health  
*“One year lost to poor health.”*

*Murray and Lopez, Science, 1996*

**Graphic:** One

D—Disability

A—Adjusted

L—Life

Y—Year

Slide 13:

**Text:** Distribution of Burden of Diseases in Egypt 1999

The Burden of Diseases among males and females is increasingly represented by Chronic Non Communicable Disease (> 60 %) similar to the developed countries

**Graphic:**

Pie Graph 1: **Females**

I. Communicable, maternal, perinatal and nutritional condit—25%

II. Noncommunicable diseases—61%

III. III defined causes—10%

IV. Injuries—4%

Pie Graph 2: **Males**

I. Communicable, maternal, perinatal and nutritional condit—20%

II. Noncommunicable diseases—61%

III. III defined causes—10%

IV. Injuries—9%

Slide 14:

**Text:** Burden of diseases related to smoking in Egypt Mostafa K. Mohamed, Mostafa El Hussein, Tayseer Elsayy

- The overall aim: is to provide estimates of deaths and years of life lost due to smoking in Egypt.
- These estimates were based on Attributable Fraction Methodology that applies current information on smoking prevalence and relative risk of death from smoking related diseases.

Slide 15:

**Graphic:**

Pie Graph

**Smoking Disease Burden in Egypt 1999**

Overall national mortality 400,000

Total deaths  $\geq 35$  Years = 302,885

Deaths Due to Smoking = 22,862 or 8% (13% in Males, 1% in females)

Heart Diseases—9,808; 42%

Cerebrovascular accidents—3,692; 16%

Vascular Diseases—2,416; 11%

Hypertension—3,215; 14%

Malignant Neoplasms—2,415; 11%

Chronic Obstructive Airway Diseases + pneumonia—1,316; 6%

Slide 16:

**Text:**

- Smoking Related Mortality (8%) of all deaths  $> 35$  years (13% among males and 1% among females).
- Disability adjusted Years of life lost (DALYS) due to smoking related diseases were estimated at 288325 years
- This figure was about 10% of DALYS lost due to all diseases among males and 0.6% among females.

Slide 17:

**Text:** “Business as usual” projections of burden due to 5 leading selected risks, 2010 and 2020

Graphics:

Vertical Bar Graph

**Attributable DALYs (% total 1.4 billion)**

**Developing high mortality**

Unsafe sex—10.8%

Underweight—6%

Tobacco—2.4%

Blood pressure—2%

Alcohol—1.2%

**Developing lower mortality**

Unsafe sex—12.2%

Underweight—6.5%

Tobacco—4.4%

Blood pressure—3.7%

Alcohol—3.2%

**Developed**

Unsafe sex—12.4%

Underweight

Tobacco—6.1%

Blood pressure—5.1%

Alcohol—4.1%

**Attributable DALYs (% total)**

**Developing high mortality**

Unsafe sex—12.2%

Tobacco—3.2%

Blood pressure—2.3%

Underweight—4.1%

Alcohol—1.2%

**Developing lower mortality**

Unsafe sex—15%

Tobacco—5.7%

Blood pressure—4.2%

Underweight—4.3%

Alcohol—3.5%

**Developed**

Unsafe sex—15.7%

Tobacco—7.6%

Blood pressure—5.7%

Underweight

Alcohol—4.3%

Slide 18:

**Text:** Trend of Cancer Mortality in Egypt 1973–1996

Age Adjusted Rate/100.000

**Graphic:**

Line Graph

**Cancer-Breast**

1973—1.1

1974—1.1

1975—1.1

1978—1.0

1981—1.2

1984—1.4

1987—1.5

1990—1.5

1992—1.4

1993—2.0

1995—1.8

1996—1.8

**Leukemia**

1973—1.3  
1974—1.5  
1975—1.2  
1978—1.4  
1981—1.8  
1984—2.0  
1987—2.1  
1990—2.0  
1992—2.2  
1993—2.3  
1995—2.3  
1996—2.3

**Lung Cancer**

1973—1.0  
1974—1.1  
1975—1.2  
1978—1.1  
1981—1.3  
1984—1.4  
1987—1.5  
1990—2.0  
1992—2.0  
1993—2.1  
1995—1.9  
1996—1.9

**Cancer-Liver**

1981—1.3  
1984—1.7  
1987—2.0  
1990—2.6  
1992—2.9  
1993—3.2  
1995—3.4  
1996—3.6

**Cancer-Brain**

1981—0.6  
1984—0.6  
1987—1.0  
1990—1.3  
1992—1.4  
1993—1.6  
1995—1.5  
1996—2.1

**Cancer-Bladder**

1981—5.0

1984—4.7

1987—4.3

1990—4.1

1992—3.5

1993—3.4

1995—3.1

1996—3.0

Slide 19:

**Text:** Leading 10 selected risk factors and diseases or injuries*Developing high mortality (AfrD, AfrE, AmrD, EmrD, SearD)*

<b>Risk factor</b>	<b>% DALYs</b>	<b>Disease or injury</b>	<b>% DALYs</b>
Underweight	14.9%	HIV/AIDS	9.0%
Unsafe sex	10.2%	Lower respiratory infections	8.2%
Unsafe water, S&H	5.5%	Diarrhoeal diseases	6.3%
Indoor smoke	3.7%	Childhood cluster diseases	5.5%
Zinc deficiency	3.2%	Low birth weight	5.0%
Iron deficiency	3.1%	Malaria	4.9%
Vitamin A deficiency	3.0%	Unipolar depr. Disorders	3.1%
Blood pressure	2.5%	Ischaemic heart disease	3.0%
<b>Tobacco</b>	2.0%	Tuberculosis	2.9%
Cholesterol	1.9%	Road traffic injury	2.0%

Slide 20:

**Text:** Leading 10 selected risk factors and diseases or injuries*Developing lower mortality (Amr B, EmrB, SearB, WprB)*

<b>Risk factor</b>	<b>% DALYs</b>	<b>Disease or injury</b>	<b>% DALYs</b>
Alcohol	6.2%	Unipolar depr. disorders	5.9%
Blood pressure	5.0%	Cerebrovascular disease	4.7%
<b>Tobacco</b>	4.0%	Lower respiratory infections	4.1%
Underweight	3.1%	Road traffic injury	4.1%
Overweight/obesity	2.7%	COPD	3.8%
Cholesterol	2.1%	Ischaemic heart disease	3.2%
Low fruit & vegetables	1.9%	Birth asphyxia/trauma	2.6%
Indoor smoke from solid fuels	1.9%	Tuberculosis	2.4%
Iron deficiency	1.8%	Alcohol use disorders	2.3%

Unsafe water, S&H	1.7%	Deafness	2.2%
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Slide 21:

**Text:** Leading 10 selected risk factors and diseases or injuries  
Developed (Amr A, Eur A, Eur B, Eur C, WprA)

Risk factor	% DALYs	Disease or injury	% DALYs
Tobacco	12.2%	Ischaemic heart disease	9.4%
Blood pressure	10.9%	Unipolar depr. disorders	7.2%
Alcohol	9.2%	Cerebrovascular disease	6.0%
Cholesterol	7.6%	Alcohol use disorders	3.5%
Overweight/obesity	7.4%	Dementia & other CNS	3.0%
Low fruit & vegetables	3.9%	Deafness	2.8%
Physical inactivity	3.3%	COPD	2.6%
Illicit drugs	1.8%	Road traffic injury	2.5%
Unsafe sex	0.8%	Osteoarthritis	2.5%
Iron deficiency	0.7%	Trachea & lung cancers	2.4%

Slide 22:

**Text:** 1. What role does ESPRI have to carry out and evaluate research for ratification and implementation of the FCTC?

To help MOHP officials recognize the magnitude of the problems (exposure level and impact on health), ESPRI has been providing baseline information:

- National survey and developing methodology for follow up surveys
- School surveys (urban and rural areas)
- Water-pipe profile surveys in villages and in Cairo
- Cigarette and water-pipe smoking among women

Slide 23:

**Text:** 1. The role of ESPRI in research for implementation of the FCTC?

Egypt has enacted many of the FCTC required laws. However, enforcing is lacking and ESPRI has provided baseline data to track improvement in compliance.

- Compliance Research studies:
  - Sales to minors:
    - Research study: more than 1000 shop owners were interviewed, and 94 % were selling tobacco to minors.
    - Access of minors to water pipe in Shisha Cafes: 25 shisha cafes were visited and all of them provided shisha to minors.

Slide 24:

**Text:** 1— The role of ESPRI in research for implementation of the FCTC?

- Compliance Research studies:
  - **Hospital Smoking: A base line study was completed and follow up is being done to assess the success of our intervention.**
    - 100 hospitals were visited. We observed staff and visitors smoking. There was evidence of cigarette butts on the floor of the wards and waiting areas. 95% of hospitals had such evidence.
    - Three focal persons were assigned for each governorate to start intervention to make hospitals smoke-free.

Slide 25:

**Text:** 1- The role of ESPRI in research for implementation of the FCTC?

- More Compliance Research Studies:
  - School Surveys: We helped MOHP for secondary analysis of GYTS Studies in rural areas on children smoking.
  - Testing cotinine levels for validation of the survey.
  - Transportation surveys: we surveyed 500 Taxis, 100 mini-buses and 25 large buses.
  - METRO underground was the only place that has achieved full compliance with the smoking ban.
  - Government buildings surveys, including Ministry of Health

Slide 26:

**Text:** 1- The role of ESPRI in research for implementation of the FCTC?

Testing for specific tobacco products that are common in the region:

- ESPRI initiated testing of water-pipe tobacco products (Shisha, Nargilah etc.) to measure the levels of toxic chemicals, mutagenicity, and carcinogenicity, in comparison to cigarettes. In conjunction with information on inhalation, puffing and other topographical characteristics, this will lead to the extrapolation of levels of exposure among water-pipe smokers compared to cigarettes.

Slide 27:

**Text:** RELIGION IS A PUBLIC HEALTH TOOL

Tobacco use is a social problem.

- It requires real change in social beliefs and social norms.
- Religion has worked successfully in this regard across EMR not only in tobacco but in other areas of health such as HIV/AIDS.
- Religious message therefore must be activated whenever possible and used as needed.

Slide 28:

**Text:** Eastern Mediterranean Regional Office LEADS Egypt Smoking Prevention Research Institute works to promote and evaluate the role of such activity

EMRO has been working with the leaders of Christian churches and Islamic institutions to endorse and support tobacco control through religious messages since the 80's of the last century.

Slide 29:

**Graphic:** Document in a foreign language

Slide 30:

**Text:** COLLABORATION WITH Community Religious Leaders Coptics and Muslims

- ESPRI is currently working with the Religious Leaders to: Train them on tobacco control related Health issues for Helping disseminate the messages within the communities at the civil society level.

Slide 31:

**Text:** ESPRI: STUDYING THE IMPACT OF THE FATWA DISTRIBUTION

- 2 years after the Fatwa distribution; the Department of Community Medicine, Ain Shams University, studied the impact of the Fatwa distribution.
- The study focused on Mosques' attendants in five major cities in Egypt:
  1. Cairo
  2. Giza
  3. Alexandria
  4. Ismailia
  5. Beni Sweif

Slide 32:

**Text:** Results Among all Individuals

Among 3635 surveyed, 2836 believed in the Fatwa, 39% of them were smokers.

Among smokers who believed in the Fatwa, following the Fatwa distribution they reported:

- 68% intended to stop smoking.
- 61% tried to stop smoking.
- 60% actually reducing the number of cigarettes they smoked.
- 69% would try to convince a friend to quit.

Slide 33:

**Text:** Regarding the decision on whether to stop selling tobacco products:

Among 1523 shop-owners surveyed:

- 1210 owners (79.4%) believed in the Fatwa,
- 27 owners (1.8% ) did not, and
- 286 owners (18.8%) were not sure.

Slide 34:

**Text:** 1— The role of ESPRI in research for implementation of the FCTC?

Three village intervention studies are helping to identify the most effective ways of implementation of FCTC in Egypt by providing evidence-based methods for

- Prevention of initiation among youth.
- Decreasing tobacco use among smokers
- Decreasing passive smoking exposure among women and kids
- Successful smoking cessation tools

Slide 35:

**Text:** 2— What is ESPRI doing, in terms of advocacy, to increase tobacco control capacity?

Networking with universities for

- Curriculum development at medical schools
- Maintaining a smoke free campus
  - ID of students are confiscated if they smoke on campus
  - Employees will forfeit their monthly bonus if they smoke

Slide 36:

**Text:** 2— What is ESPRI doing, in terms of advocacy, for effective implementation of the FCTC requirements

Media Advocacy for Tobacco laws and implementation

- Emphasis : Non-smokers rights to a smoke-free environment In addition to Awareness issues
- Radio talks by experts, with youth contests for prizes based on their knowledge of the right answers
- Development of songs, drama, and TV spots for use by national media and NGO's
- A satellite TV show was arranged with a famous youth religious leader (Amr Khaled), who spoke on passive smoking

Slide 37:

**Text:** FUTURE DIRECTION

- Continue the efforts in this line.
- Involve other partners.
- Develop a more appealing message to specific population groups (Youth-Women).
- Enhancing partnership with other regions.

Slide 38:

**Text:** Future Directions: there a significant benefit to sharing research and research capacity across countries and regions

During the first two years ESPRI focused on local research and developing research tools and resources. We are starting to initiate regional (Middle East) collaborations:

- Starting a Middle East and Africa Journal of Tobacco Research
- Initiation of a web site with information in Arabic for the region.
- Starting collaboration with Iraq
- Ongoing collaboration with WHO EMRO
  - on Water-Pipe Monograph
  - Burden of Disease for other countries in the EMRO region